The Bulletins are published weekly throughout the school year (thirty issues) to aid teachers and students in keeping abreast of geography behind current news events.

GEOGRAPHIC SCHOOL BULLETINS

of

The National Geographic Society

WASHINGTON 6, D. C.

The National Geographic Society is a non-profit educational and scientific Society established for the increase of geographic knowledge and its popular diffusion.

VOLUME XXVIII — February 27, 1950 — NUMBER 20

1. "Operation Bootstrap" Helps Puerto Rico
2. Viet Nam Replaces Three Indochinese States
3. Scotland Plans Power to Revive Highlands
4. The Potato Has a Surplus of Legends, Too
5. Shawneetown Unconcerned by Ohio Floods

EDWIN L. WISHERD

A HOT FIVE-COURSE MEAL IS DELIVERED AT A DOORWAY IN SAN JUAN, PUERTO RICO (Bulletin No. 1)

Bulletin No. 1, February 27, 1950

"Operation Bootstrap" Helps Puerto Rico

PUERTO RICO is bursting at the seams. The West Indies island, 1,000 miles southeast of Miami, Florida, has doubled in population since Uncle Sam won it in 1898 as the result of the Spanish-American War. Its 2,150,000 inhabitants in 3,435 square miles make it the second most densely populated state or territory under the red, white, and blue. Only Rhode Island has more persons per square mile.

Puerto Rico outranks both Rhode Island and Delaware in area and eclipses half of the 48 states in population. In one two-year period since World War II, 63,000 Puerto Ricans migrated to the continental United States. They went mostly to New York City looking for jobs their island did not offer.

Island Needs Industry

To improve home conditions, the island government, operating under the first elected governor in Puerto Rico's four and a half centuries of civilized existence, has inaugurated "operation bootstrap." This is a long-term plan with the primary object of establishing big industry on the island. Other aims are better housing, improved roads, more hydroelectric projects, and better education. By its own bootstraps the island hopes to lift itself to a standard of living comparable to that of the United States mainland.

Puerto Rico's vigorous young leaders think industrialization is the answer. The island has been predominantly agricultural, but the population has increased beyond the ability of the land to support it. Mountains are everywhere, cutting down the percentage of tillable land.

Sugar cane is the main cash crop and the largest single source of employment. Next come tobacco (illustration, next page), coffee, and pineapples. Citrus fruit, coconuts, and vegetables are grown to be eaten on the island. Puerto Rico produces only one-half of what it eats.

Needlework is the largest non-agricultural industry. More than 70,000 nimble-fingered men and women, often in their own homes, supplement their incomes by sewing designs on unfinished articles. Other industries —such as rum making and cigar wrapping—process farm products.

Housing Improved in San Juan Area

Much more industry is needed to keep the fast-growing labor force busy. The government is attracting corporations and investors from the mainland by building a number of dams to provide power. It is training 3,000 students yearly in technical subjects. It has built "show-me" plants which are producing tile, bottles, shoes, and cement. Federal income taxes are not collected in Puerto Rico.

Near San Juan, the capital (illustration, cover), the government has built 10,000 low-cost concrete homes to take care of such slum dwellers as lived in El Fanguito (the little mudhole), a teeming shanty-town.

ENTERED AS SECOND CLASS MATTER APRIL 27, 1943, POST OFFICE, WASHINGTON, D. C., UNDER ACT OF MARCH 3, 1879.
COPYRIGHT, 1950, BY THE NATIONAL GEOGRAPHIC SOCIETY. INTERNATIONAL COPYRIGHT SECURED. ALL RIGHTS RESERVED.
SUBSCRIPTION TWENTY-FIVE CENTS FOR THIRTY WEEKLY ISSUES DURING THE SCHOOL YEAR. IN CANADA FIFTY CENTS.

UMI

HOWELL WALKER

FROM THESE LONG ROWS IN MAINE'S AROOSTOOK COUNTY COMES ONE OF THE MOST PRECIOUS GEMS THE EARTH YIELDS—THE POTATO

Man digs up a greater wealth in potatoes (Bulletin No. 4) each year than he does in gold and silver combined. In every country of the Temperate Zones potatoes rank next in importance to the cereal crops. The tuber of the potato plant, though forming underground, is not a root or bulb. It is part of the stem, used by the plant for storing food and water. Next to Maine, the leading potato-producing states are Idaho, New York, California, Minnesota, Pennsylvania, and Michigan.

Bulletin No. 2, February 27, 1950

Viet Nam Replaces Three Indochinese States

VIET NAM, five years ago a name lost in southeast Asia antiquity, appears to be in postwar gazetteers to stay. It is an ancient name for Annam. Modernly, Annam is well known—to geographers and stamp collectors at least—as one of the five divisions of French Indochina.

Viet Nam means "distant south"—its position in relation to China. Recently reborn, it became the name of Indochina's Japanese puppet state, organized shortly before VJ Day. The French, regaining control of Indochina in 1946, proposed independent statehood, within a new Federation of Indochina, to the five units of their colony.

Best Half of French Indochina

Instead of five federated Indochinese states within the French Union, however, today there are three—Viet Nam, Cambodia, and Laos. Viet Nam, rocked by recurrent fighting between pro-French and Soviet-orientated factions, grew to include three of the old divisions—Tonkin, Annam, and Cochin China. Although the strife continues, Viet Nam as the state name appears to suit both sides.

Viet Nam's three-province share amounts to not quite half the area of Texas-sized Indochina. That it is by far the more productive half is shown by the fact that it holds perhaps 22,000,000 of Indochina's estimated 27,000,000 population.

Viet Nam stretches the full 1,200 miles of Indochina's S-curve east coast, taking in the populous flood plain and delta of the Red and Black rivers in the north and the vast ricelands of the larger Mekong River delta in the south. These are the principal areas of cultivated land that in prewar years paced the successful economy of the French colony.

Rice was the pay crop on five-sixths of French Indochina's cultivated land—a higher proportion than in any other country. Although production is again well established, it is under the four-million-ton hulled-rice output for prewar years. Crowded Tonkin still has a problem of producing enough for its own use.

Chinese Are Middlemen

Rubber and corn, second and third in rank among farm exports, remain far below their levels of a decade ago. So do tobacco, sugar, spices, and other crops. Tonkin, northern Viet Nam, holds a near-monopoly on Indochinese mineral wealth so far exploited. The list includes coal, iron, tin, zinc, lead, bauxite, and phosphate rock.

Chinese, although numbering only one million, are Indochina's merchants, business men, and small industrialists. Living in the cities and towns, they own the stores and mill most of the rice and timber.

Saigon, great rice port, is in Cochin China, the Mekong-delta heartland. With Cholon, the commercial center adjoining, it combines to form a twin-city region of 1,500,000 residents—one that has grown rapidly in recent years.

UMI

Great resources are the island's location, beauty, and climate—factors attracting tourists. Though in the tropics, San Juan has never had a higher temperature reading than 94 degrees Fahrenheit. The average for its warmest month is 76. Many northern United States cities are hotter. Ocean breezes are the answer. They sweep across the island from the cool North Atlantic.

Puerto Ricans are Spanish-speaking. Many of them are Negroes. More than one-third speak English. But the average islander is more Spanish than anything else. He loves his island and is proud of its achievements under United States tutelage. It is only when he compares himself with his continental brother citizens that he feels depressed about island conditions. Excepting Argentina, few, if any, Latin American countries can show a higher general level of economy.

NOTE: Puerto Rico is shown on the National Geographic Society's map of Countries of the Caribbean. Write the Society's headquarters, Washington 6, D. C., for a price list of maps.

For further information, see "Puerto Rico: Watchdog of the Caribbean," in the *National Geographic Magazine* for December, 1939.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, March 24, 1947, "Caribbean Isles View Peacetime Maneuvers."

N. H. DARTON

PUERTO RICO TOBACCO GROWERS PROTECT THEIR CROP WITH ACRES OF CHEESECLOTH

Much of the island's output goes into cigars that rival Cuba's fine Havanas. Workers are poorly paid, both on the land and in the cigar factories. They ruefully report that they produce an after-dinner luxury—and themselves go without dinner.

Bulletin No. 3, February 27, 1950

Scotland Plans Power to Revive Highlands

THE bonnie banks of Loch Lomond are adding hydroelectric power to their beauty. Scotland's most famous lake thus plays an important part in the postwar revival of the Scottish Highlands.

Victim of a two-century depression and nearly deserted, the rugged region of western Scotland north of the Clyde once was inhabited by a lusty, vigorous people.

Majority of Scots Live Between Forth and Clyde

The decline of the Highlands began in 1745 when Prince Charles Edward Stuart (the Young Pretender) landed in the near-by Hebrides (illustration, next page) to rally the mighty clans for a last stand against the English in his fight to win the English throne. The English victory over "Bonnie Prince Charlie" and his Scottish supporters at the Battle of Culloden spelled doom for the clans.

In the decades that followed, thousands of Highland Scots left impoverished homes to seek a living overseas in British colonies or the United States. Other thousands moved to the Lowlands of Scotland, where today nine-tenths of the country's 5,000,000 people live in an industrialized strip between Edinburgh and Glasgow. In this 30-mile pathway from the Firth of Forth to the Firth of Clyde, the shipbuilding and coal industries have wavered between prosperity and depression.

The Highlands, long noted for great scenic beauty and the fishing in lakes and streams, attracted many tourists. Well-to-do Britons built shooting lodges and summer homes there. The remnants of the once proud clans went to work as servants on the estates, or farmed as best they could without the fertilizer and equipment they needed but could not afford. They devoted spare hours to fishing, and to spinning yarn to be woven into Harris tweed in the Hebrides area from which it takes its name.

Lomond Power Plant Largest in United Kingdom

With war's end, Scotland began an extensive series of power projects. For centuries, the Highlands Scots had lighted their homes with oil lamps and heated them with coal and peat while all around them millions of potential kilowatts of electricity gushed away in swift mountain torrents. Thanks to the North of Scotland Hydro-Electric Board, thousands of these homes are now enjoying the luxury of electricity.

The first power plant to be finished has been in operation for some time at Kyle of Lochalsh. The end of the year saw the completion of the second—the largest hydroelectric development in the United Kingdom, with a generating plant on the west shore of Loch Lomond.

Water for this station comes down a two-mile tunnel through Ben Vorlich from Loch Sloy, a mountain lake 800 feet above sea level, and two miles northwest of Loch Lomond.

As soon as plentiful and cheap electric power has been assured, Scotland hopes to develop light industries producing such consumer goods as vacuum cleaners, clocks, cosmetics, furniture, and food products. It is believed that these new industries will provide jobs to keep at home thou-

UMI

Hanoi, in Tonkin, is the Viet Nam capital and chief city of the north. Hanoi and its port, Haiphong, are 60 miles apart and count 250,000 people, combined. Pnompenh (illustration, below), next in importance, is the capital of Cambodia, a state renowned for its relics of an ancient high civilization. Cambodians number about 3,000,000.

Laos, stretching for 700 inland miles along the Mekong, is Indochina's wild west. Mountains wall it from its neighbors, Annam, China, and Burma, so that its natural contacts have been with Siam (Thailand) on the west. Half its population is Siamese.

Laos has teak and other hardwoods in its vast forests, and fair prospects of mineral wealth. Before they can be exploited, however, Indochina has a big task in bringing its waterways, roads, and railways to something like prewar condition.

NOTE: Viet Nam may be located (as its prewar states, Tonkin, Annam, and Cochin China) on the Society's map of Southeast Asia.

For additional information, see "By Motor Trail Across French Indo-China," in the *National Geographic Magazine* for October, 1935.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, March 7, 1949, "French Indochina Forms Tropical Crossroads"; and "Strife Still Rules in French Indochina," January 19, 1948.

MAYNARD OWEN WILLIAMS

IN PNOMPENH, A CAMBODIAN MOTHER PRESENTS AN OFFERING AT BUDDHA'S SHRINE

The curious name means "hill of Penh." Centuries ago, a native woman—Madame Penh—saved four sacred images of Buddha from the flooded Mekong. This shrine was built around them on a hill (pnom). The woman's tribute includes the best of her fruits and vegetables.

It would take almost 200 Formosas to equal the land area of the continent-country of Australia, but the strategic Chinese island, with a population exceeding seven million, currently has almost as many people as the big commonwealth. According to a recent ruling of the National Geographic Society's cartographic section, the correct spelling of Formosa's (and nationalist China's) capital is Taipei. In the interests of standardized usage, the press now uses this spelling.

Bulletin No. 4, February 27, 1950

The Potato Has a Surplus of Legends, Too

MOUNTAINS of surplus potatoes piling up in Aroostook County, Maine (illustration, inside cover), in Idaho, and in other spud-growing centers recall another excessive potato crop—the legends and false notions that surround the common food plant.

First, the Irish, white, or round potato (*Solanum tuberosum*) is a potato only by analogy. The sweet potato is the true bearer of the name. The first European explorers, probably Columbus himself, found this plant cultivated widely by Caribbean Indians, who called it *batata*.

Irish Brought Potato to North America

In the 16th century, Spaniards in the Andes Mountains discovered white-meated tuberous plants called *papas* by the Incas. This is still their Spanish name. But in English, because of their similarity to the batata, they also became batatas, or potatoes, though completely unrelated.

Early accounts mistakenly credited Virginia with being the birthplace of the white potato. Actually, the plant reached North America from Europe where it had been transplanted from Peru. Ireland and north England took readily to it. The Irish especially demonstrated its value as a staple food as early as 1663. In 1719, Irish immigrants brought the first potatoes to North America, planting them in Rockingham County, New Hampshire. Thus there is justification for the name "Irish potato."

Other misleading accounts tell how Sir Walter Raleigh (or Sir Francis Drake) introduced the potato to the British Isles. One authority classes this story with George Washington and the cherry tree, since Raleigh never saw a potato in the New World and Drake had only one opportunity to do so—in 1578. Sir Walter (or Sir Francis, depending on the version) returned from his New World travels with some potatoes. He asked his gardener to plant them.

After they blossomed, the man ate one of the acid-tasting fruits that develop above ground and exclaimed, "If this is your fine foreign fruit, I would not give it garden room, not I." Tongue in cheek, his master told him to pull up the plant, roots and all, since it was no good. The gardener then discovered the real worth of the potato plant when he observed the tubers clinging to the roots.

Potato Was Slow to Spread

Once the potato was considered poisonous to humans and harmful to the soil. Being a member of the *Solanum*, or nightshade family, may have contributed to this idea. Some of its cousin plants do have poisonous or narcotic properties.

Unlike other New World crops, the potato spread slowly. Though known as early as 1538, it was still regarded with suspicion in France and Germany in the middle 1700's. Prussia's Frederick the Great tried to force potato growing, but it was famine conditions following the Seven Years' War that really established potato culture in his country.

Public wearing of potato blossoms by Marie Antoinette helped popu-

UMI

sands of young people who, if the depressing prewar conditions continue, might have to emigrate. The conversion of hunting lands and timber tracts to productive farms and cattle ranches should further revitalize the Highlands.

While rejoicing in progress, as represented by the hydroelectric program, Highlanders hold dear the history and traditions of the lake region, famed in literature and song. On the banks of Loch Lomond, Robert the Bruce hunted, and Rob Roy MacGregor sallied forth to relieve his neighbors of their worldly goods.

Of the 30 islands that dot Lomond, Inchmurrin is the largest. On its southern tip stand the ruins of Lennox Castle, besieged in 1425 after the Lennox family plotted against King James I. From Inchcailloch, known —from a nunnery that once stood there—as the "isle of old women," Roderick Dhu of *The Lady of the Lake* took a yew tree to make the Fiery Cross.

NOTE: The Scottish Highlands appear on the Society's map of the British Isles.

For further information, see "British Castles, History in Stone" (16 etchings), in the *National Geographic Magazine* for July, 1947; "Hunting Folk Songs in the Hebrides," February, 1947; "Bonnie Scotland, Postwar Style," May, 1946*; and "Scotland in Wartime," June, 1943. *(Issues marked with an asterisk are included on a special list of Magazines available to teachers in packets of ten for $1.00.)*

See also, in the GEOGRAPHIC SCHOOL BULLETINS, December 5, 1949, "U.N. Eyes Edinburgh for General Assembly"; "Fifeshire Booms as Scottish Coal Center," December 15, 1947; and "Self-Reliant Scotland Plans New Industries," March 3, 1947.

MARGARET SHAW CAMPBELL

A STURDY STONE COTTAGE STANDS SENTINEL ABOVE THE BAY WHERE PRINCE CHARLIE LANDED

Like fringes of the Highlands, the rugged Hebrides lie off Scotland's western coast. There, on little Eriskay Island, Bonnie Prince Charlie landed two centuries ago to rally the Highland clans against the English, with the British crown as the prize. Defeat brought a gradual decline to Scotland's western region of lochs and bens, now reviving with the aid of hydroelectric power.

The following order form may be used (or copied) for requesting the BULLETINS:

School Service Department, National Geographic Society, Washington 6, D. C.

Kindly send ..... copies of the GEOGRAPHIC SCHOOL BULLETINS weekly for one school year for classroom use to

Address for sending BULLETINS .....

City ..... State .....

I enclose, for each subscription, 25 cents (in United States or its possessions; in Canada, 50 cents in U. S. Funds): Total amount. .....

Bulletin No. 5, February 27, 1950

Shawneetown Unconcerned by Ohio Floods

FEW residents of Shawneetown, Illinois, worry nowadays when Ohio River waters pound against the town's levee as they have been doing recently. Shawneetown is the resolute community that climbed a hill to a new site three miles back from the river after digging itself out of the muck of the worst Ohio River flood of modern times, in early 1937 (illustration, next page).

On a 320-acre tract averaging about 70 feet higher than the old town, a new town was laid out according to a contest-winning plan. Streets, sidewalks, sewers, and electricity were installed.

New Town Includes New and Old Buildings

The town's big water tank was moved without dismantling. So were a big grain elevator and 237 private residences that had survived the 1937 deluge. By the time Pearl Harbor put a brake on civilian construction, the moving job was almost complete.

A courthouse for Shawneetown, seat of Gallatin County, was one of more than 120 new buildings erected with state and federal financial aid. Since the war, churches, a community center, many new homes, and business structures have been built.

Homes, churches, stores, and business offices lie on the north side of the new town's wide main highway and mall. To the south are the railroad and industries—the grain elevator, a sawmill, dress factory, and popcorn processing plant. Gallatin County is one of the nation's big popcorn producers.

The old town numbered 1,900 people at the time of the 1937 flood. Only 36 stayed on location throughout the weeks of high water. There are now about 500 living in the lee of the levee that rises 17 feet above the level of the main street.

The population of the new town is more than 1,600. A narrow strip of land joining the two sites is officially part of the corporate area, giving Shawneetown somewhat the shape of a three-mile-long dumbbell.

Salt Wells Made Early Town Thrive

Shawneetown is one of the oldest as well as the newest town in Illinois. Pioneers from Virginia established it 150 years ago as a post for trading with the Shawnee Indians. Kaskaskia, on the Mississippi, was almost a century older, but by 1910 it had succumbed to the river's encroachments.

Salt wells to the west of Shawneetown made it thrive. The settlement shipped salt by river flatboat to Pittsburgh and New Orleans for the nation's tables until cheaper sources were developed in Michigan after the Civil War. It was the chief financial and industrial center in the Illinois Territory by 1827, when its bank turned down a $1,000-loan application from the developers of Chicago on the ground that Chicago was too far from Shawneetown to amount to anything.

Shawneetown had no levee until 1875. Then one was built to surpass

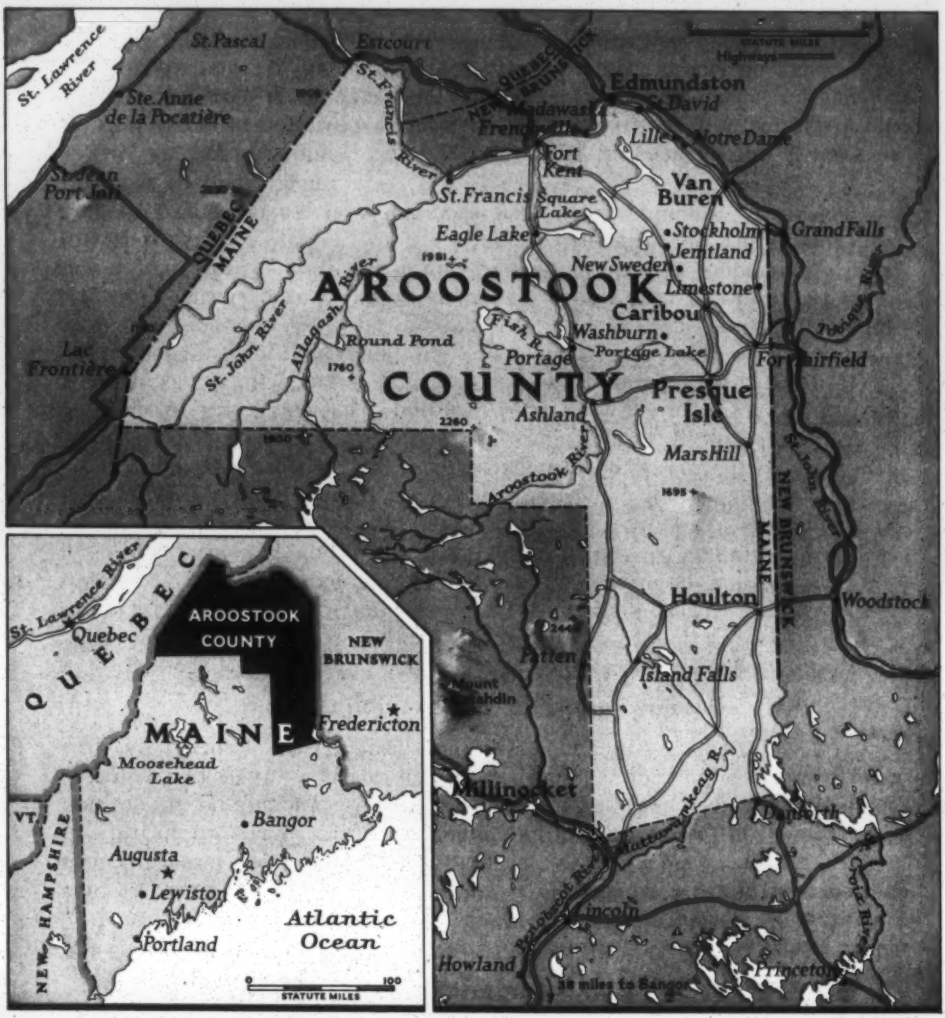
UMI

larize the food in France. Louis XVI, in thanking his pharmacist A. A. Parmentier for his work in introducing the potato from Prussia, said "France will thank you some day for having found bread for the poor."

Devout Scottish folk avoided potatoes because they were not mentioned in the Bible. Hunger in the 1740's helped them overlook their principles. But it already had become the only food crop of the Irish and, in various forms, their only menu item—breakfast, dinner, and supper.

Bad growing years caused famine, since there was no substitute food. The United States received many of its Irish emigrants as the result of potato famines which drove hundreds of thousands from the "ould sod."

NOTE: For further information, see "Aroostook County, Source of Potatoes," in the *National Geographic Magazine* for October, 1948.



DRAWN BY THEODORA PRICE

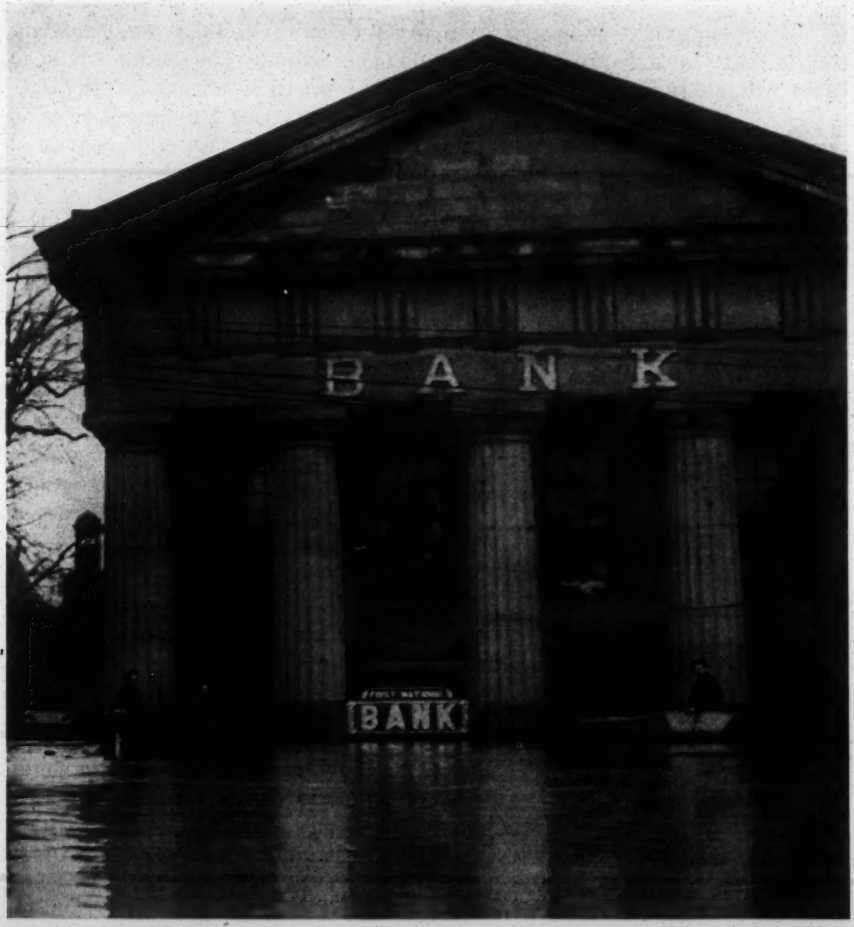
A STRIP ON BIG AROOSTOOK COUNTY'S EAST BORDER GROWS MORE POTATOES THAN ANY STATE

the flood level of 1867. It was raised and enlarged after a series of inundations, 1880 to 1884. Although floods of 1898 and 1913 breached the wall, no major rebuilding was done until 1933. Then came 1937, with waters topping the newly enlarged levee by more than four feet.

The new town can be cut off from the rest of the state by heavy floods, since lower land lies on all sides. Its lowest point is 19 feet above the record high water of 1937—enough to allow Shawneetonians an unconcerned yawn in the face of an Ohio River flood.

NOTE: Shawneetown may be located on the Society's map of the North Central United States.

For additional information, see "Shawneetown Forsakes the Ohio," in the *National Geographic Magazine* for February, 1948; "Taming the Outlaw Missouri River," November, 1945*; "Men Against the Rivers," June, 1937; and "The Great Mississippi Flood of 1927," September, 1927.



HURTIK STUDIO

SHAWNEETOWN'S BANK DID BUSINESS ON THE SECOND FLOOR DURING THE GREAT FLOOD OF 1937

From January 26 to March 17 the first floor was covered, but boats brought customers to the teller's "window." It was this flood that caused the Illinois town to move to a higher location three miles inland from the rampaging Ohio River.